

Application Number 10/664,235
Amendment in response to Office Action mailed January 10, 2006

REMARKS

This amendment is responsive to the Office Action dated January 10, 2006. Applicants have amended claims 1, 11 and 12. Claims 20-25 have been cancelled. Claims 1-19 are pending.

Restriction Requirement

In the Office Action, the Examiner acknowledged Applicants' election without traverse of "Group 1 (claims 1-19)". Applicants have cancelled the previously withdrawn claims 20-25 at this time.

Objection to the Drawings

In the Office Action, the Examiner objected to FIG. 4 because it includes one or more reference signs not mentioned in the description. Applicants have amended paragraph [0044] of the Specification to correct the omitted "(74)" associated with FIG. 4. The amendment to paragraph [0044] overcomes the Examiner's objection to FIG. 4. The amendment to paragraph [0044] does not introduce new matter.

Objection to the Specification

In the Office Action, the Examiner objected to the Specification and the Claims due to two informalities. Applicants have amended paragraph [0036] in the Specification and claim 11 according to the corrections suggested by the Examiner. The amendment to paragraph [0036] overcomes the Examiner's objection to the specification, and does not introduce new matter.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-5, 10-16 and 19 under 35 U.S.C. 102(b) as being anticipated by Ohta et al. (U.S. 4,510,453). Applicants respectfully traverses the rejection to the extent such rejection may be considered applicable to the amended claims. Ohta fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. 102(b), and provides no teaching that would have suggested the desirability of modification to include such features. Specific claims are addressed below.

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Claims 1-5 and 10-11

Independent claim 1, as amended, requires double-sided data storage tape comprising first and second opposing sides, wherein the data storage tape is double-sided, a turntable, and a head mounted on the turntable, wherein the turntable rotates to allow the head to access the first and second sides of the double-sided data storage tape. The current amendment to claim 1 is clearly supported by FIG. 1B of the current application. Specifically, elements 15A and 15B of FIG. 1B point to opposing sides of data storage tape. Ohta fails to disclose each and every limitation of claim 1.

Ohta describes a "forward track" and a "reverse track" of a magnetic tape, but there is no mention or suggestion that the forward track and reverse track are located on opposing sides of double-sided data storage tape. Ohta only discloses "obtain[ing] the optimum azimuth angle, or contact angle of the magnetic head 10 relative to the face of the tape."¹ Thus, Ohta teaches a magnetic head 10 that is positioned relative to "the face," i.e. one side, of a tape.

The Examiner further stated on page 3 of the Office Action that, "Ohta teaches a system comprising data storage tape . . . comprising first and second sides (i.e., an upper side and a lower side, that is, first and second sides are not necessarily opposing)" According to the Examiner's interpretation of the reference, the reference of Ohta does not teach that the forward track and reverse track are located on opposing sides of the double-sided data storage tape.

The disclosure of Ohta also fails to describe a head mounted on the turntable, wherein the turntable rotates to allow the head to access the first and second opposing sides of the double-sided data storage tape. Ohta teaches rotating "magnetic head 10 relative to the face of the tape,"² as further shown in FIG. 2A of Ohta. Magnetic head 10 rotates in a plane parallel to the face of the tape. Therefore, the disclosure of Ohta fails to suggest that the turntable rotates to allow the head to access the first and second opposing sides of the double-sided data storage tape.

Claim 2 requires that the head accesses the first and second sides by contacting the first and second sides. As described above with respect to claim 1, Ohta fails to disclose that the head access the first and second sides by contacting the first and second sides, wherein the first and

¹ Ohta, Col. 5, ll. 46-48.

² Ohta, Col. 5, ll. 47-48.

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second sides are opposing sides of a double-sided data storage tape. Again, Ohta teaches rotating "magnetic head 10 relative to the face of the tape,"³ as further shown in FIG. 2A of Ohta. Thus, magnetic head 10 of Ohta rotates in a plane parallel to the face of the tape. For this reason, the disclosure of Ohta fails to suggest that the head accesses the first and second sides by contacting the first and second sides.

The reference of Ohta fails to teach double-sided data storage tape comprising first and second opposing sides, and a turntable that rotates to allow the head to access the first and second sides of the data storage tape. For at least the reasons described above with regard to independent claim 1, dependent claims 2-5 and 10-11 are in condition for allowance.

Claims 12-16 and 19

The deficiencies in Ohta with respect to independent claim 12 are similar to the deficiencies in Ohta with respect to independent claim 1. Ohta fails to disclose a head mounted on a turntable, wherein the turntable rotates to allow the head to access first and second opposing sides of a double-sided data storage tape, as required by independent claim 12.

As described above, Ohta teaches a "forward track" and a reverse track" of a magnetic tape, but there is no mention or suggestion the forward track and reverse track are located on opposing sides of double-sided tape. Ohta discloses, "obtain[ing] the optimum azimuth angle, or contact angle of the magnetic head 10 relative to the face of the tape."⁴ Thus, Ohta only teaches that the magnetic head 10 is positioned relative to "the face," i.e. one side, of a tape.

Further, as mentioned previously, Ohta teaches rotating "magnetic head 10 relative to the face of the tape,"⁵ as further shown in FIG. 2A of Ohta. Magnetic head 10 rotates in a plane parallel to the face of the tape. Therefore, the disclosure of Ohta fails to suggest that the turntable rotates to allow the head to access first and second opposing sides of a double-sided data storage tape. For this reason, independent claim 12 is in condition for allowance.

The deficiencies in Ohta with respect to claim 13 are similar to the deficiencies in Ohta with respect to independent claim 2. In particular, Ohta fails to teach that the head accesses the first and second sides by contacting the first and second sides, as required by claim 13. As

³ Ohta, Col. 5, ll. 47-48.

⁴ Ohta, Col. 5, ll. 46-48.

⁵ Ohta, Col. 5, ll. 47-48.

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described above with respect to claims 1 and 12, Ohta fails to disclose that the head access the first and second sides by contacting the first and second sides, wherein the first and second sides are on opposing sides of double-sided data storage tape. Ohta teaches rotating "magnetic head 10 relative to the face of the tape,"⁶ as further shown in FIG. 2A of Ohta. Magnetic head 10 rotates in a plane parallel to the face of the tape. Therefore, the disclosure of Ohta fails to teach, or even suggest, that the head accesses the first and second sides by contacting the first and second sides.

The reference of Ohta also fails to teach a head mounted on a turntable, wherein the turntable rotates to allow the head to access first and second opposing sides of a double-sided data storage tape. For at least the reasons described above with regard to independent claim 12, dependent claims 14-16 are in condition for allowance.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 8-9 under 35 U.S.C. 103(a) as being unpatentable over Ohta et al. (U.S. 4,510,453). Applicants respectfully traverses the rejection to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicants' claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Claim 8 should be allowed insofar as it depends upon claim 1, which includes features not disclosed or suggested in Ohta, as outlined above. In addition, claim 8 requires a set of guides to facilitate contact of the head with the first and second sides of the data storage tape. With respect to the additional features of claim 8, the Examiner stated that "it is notoriously old and well known in the art to have a data storage tape system further comprise guides in the same field of endeavor for the purpose of enabling track alignment."⁷ Applicants disagree and submit that a set of guides to facilitate contact of the head with the first and second sides of the data storage tape is novel and non-obvious.

It is well established that the Examiner bears the burden of establishing a prima facie case of obviousness.⁸ In doing so, the Examiner must determine whether the prior art provides a

⁶ Ohta, Col. 5, ll. 47-48.

⁷ Office Action, page 6.

⁸ *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

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"teaching or suggestion to one of ordinary skill in the art to make the changes that would produce" the claimed invention.⁹ A prima facie case of obviousness is established only when this burden is met.

The Court of Appeals for the Federal Circuit has specifically addressed the evidentiary standard required to uphold an obviousness rejection.¹⁰ In particular, the Federal Circuit stated: "[the] factual question of motivation is material to patentability, and (can) not be resolved on subjective belief and unknown authority."¹¹ This finding must be based upon substantial evidence, and not subjective musings or conjecture by the Examiner.¹² Deficiencies in the evidentiary record cannot be cured by general conclusions such as "general knowledge" or "common sense."¹³ Accordingly, the Examiner cannot rely on unsupported, conclusory statements to close holes in the evidentiary record.¹⁴ Unless the Examiner can establish an evidentiary record based on concrete prior art references that establish that it would have been obvious to a person with ordinary skill in the art to incorporate the features of Applicants' dependent claims, the claims should be allowed.

In the current case, the Examiner failed to explain why one of ordinary skill in the art would have considered it desirable "to require a set of guides to facilitate contact of the head with the first and second sides of the data storage tape" in the Ohta system. Claim 8 recites a set of guides to facilitate contact of the head with the first and second sides of the data storage tape. The Examiner has not even provided any teaching that substantiates the existence of such a feature in other systems at the time of Applicants' filing, much less evidentiary support of motivation to combine this feature into the systems of the applied references.

In addition, the Examiner also stated, "One of ordinary skill in the art would have been motivated to have had the data storage tape system of Ohta further comprise guides since such enables track alignment."¹⁵ As described previously, however, Ohta fails to disclose a turntable that rotates to allow the head to access first and second sides of a data storage tape, wherein the data storage tape is double-sided. Without needing to access first and second sides of a data

⁹ *In re Chu*, 36 USPQ2d 1089, 1094 (Fed. Cir. 1995).

¹⁰ *In re Lee*, 61 USPQ2d 1430, (CAFC 2002).

¹¹ *Id.* at 1434.

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

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storage tape, there would be no motivation for one of ordinary skill in the art to provide a set of guides to facilitate contact of the head with the first and second sides of the data storage tape.

Claim 9 requires that only a subset of the set of guides contact the data storage tape. The Examiner stated that "it is notoriously old and well known in the art to have a data storage tape system further comprise guides in the same field of endeavor for the purpose of enabling track alignment."¹⁶ As mentioned above with respect to claim 8, deficiencies in the evidentiary record cannot be cured by general conclusions such as "general knowledge" or "common sense."¹⁷ Accordingly, the Examiner cannot rely on unsupported, conclusory statements to close holes in the evidentiary record.¹⁸ Therefore, the Examiner has failed to provide teachings from the evidentiary record that uphold an obviousness rejection of claim 9.

Further, the Examiner also stated that "one of ordinary skill in the art would have been motivated to have had the data storage tape system of Ohta further comprise guides since such enables track alignment."¹⁹ However, there is no motivation in the teachings of Ohta for one of ordinary skill in the art to modify Ohta such that only a subset of the set of guides contact the data storage tape.

For these additional reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicants' claims 8-9 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

Allowable Subject Matter

In the Office Action, the Examiner objected to claims 6, 7, 17 and 18 as including subject matter that would be allowable if rewritten in independent form. In this amendment, Applicants have not amended the independent claims to include all subject matter recited by the base claims and any intervening claims on which these claims depend. However, Applicants reserve the right to present allowable claims 6, 7, 17 and 18 in their independent form.

¹⁵ Office Action, page 6.

¹⁶ Office Action, page 6.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Office Action, page 6.

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CONCLUSION

All claims in this application are in condition for allowance. Applicants respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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4/3/06

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